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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,896	09/12/2003	Robert E. Smith III	221-0072US	8523

29855 7590 08/25/2004

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EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,896

Applicant(s)

SMITH, ROBERT E.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/8/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

No priority claimed.

Information Disclosure Statement

The information disclosure statement (IDS) filed 1/8/2004 is being considered by the examiner.

Specification

The disclosure is objected to because of the following informalities:

Page 3 recites, "The floating seal 20 may be an elastomeric material such as PEEK"; however, it is not clear to the Examiner what "PEEK" might be.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5 and 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 4900071, Smith.

In regards to claim 1, Smith discloses a female undersea hydraulic coupling member, comprising:

a floating seal (50) inserted into a receiving chamber of the female coupling member (60), the floating seal having a smaller outer diameter than the receiving chamber and being movable radially within the receiving chamber, the floating seal

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having at least one axially engageable seal (61) positioned adjacent a first end thereof and at least one axially engageable seal (41) positioned adjacent a second end thereof, and at least one sealing surface extending radially inwardly from the floating seal.

In regards to claim 2, Smith discloses the axially engageable seals being O-rings.

In regards to claim 3, Smith discloses axial ridges extending from the first end thereof.

In regards to claim 5, Smith discloses a retainer nut (30) threaded to the female coupling member, for preventing axial movement of the floating seal.

In regards to claim 12, Smith discloses an undersea hydraulic coupling member comprising:

- a female coupling member having an internal bore and a receiving chamber with a shoulder intermediate the receiving chamber;

- a floating seal dimensioned for insertion into the receiving chamber and positioned against the shoulder, the floating seal moveable (minutely) radially within the receiving chamber; and

- a retainer nut engageable with the female coupling member, the retainer nut configured to hold and restrict axial movement of the floating seal between the retainer nut and the shoulder.

In regards to claim 13, Smith discloses the floating seal having a first end and an O-ring positioned in a groove adjacent the first end thereof.

In regards to claim 14, Smith discloses the floating seal having a second end and an O-ring positioned in a groove adjacent the second end thereof.

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In regards to claim 15, Smith discloses an axially extending ridge (52) from the floating seal.

In regards to claim 16, Smith discloses the floating seal being axially compressed between the retainer nut and shoulder.

In regards to claim 17, Smith discloses the floating seal having at least one sealing surface extending radially inwardly therefrom.

Claims 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 6179002, Smith.

In regards to claim 7, Smith discloses a floating seal for an undersea hydraulic coupling member comprising:

an elastomeric body (50) having a first smaller outer diameter and a second larger outer diameter, an inner diameter having at least one sealing surface projecting inwardly therefrom, a first O-ring (59) positioned in a groove adjacent a first end of the floating seal, and a second O-ring (58) positioned in a groove adjacent a second end of the floating seal.

In regards to claim 8, Smith discloses a pair of axially extending ridges (51, 52) adjacent the first end thereof.

In regards to claim 9, Smith discloses a pair of axially extending ridges (55, 56) adjacent the second end thereof.

In regards to claim 10, Smith discloses at least one O-ring extending around the outer diameter thereof.

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In regards to claim 11, Smith discloses a retainer nut (30) dimensioned to abut the second end of the floating seal.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '071 in view of Smith '002.

In regards to claim 4, Smith '071 discloses the claimed invention except for the float seal having axial ridges extending from the second end thereof. Smith '002 teaches a float seal (70) having axial ridges (74, 75) extending from the second end thereof, "to enhance the seal against the probe section of the male member" (col. 4, lines 35-36). As Smith '002 relates to a undersea hydraulic coupling member, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the float seal with axial ridges extending from the second end thereof, to enhance the seal against the probe section of the male member, as taught by Smith '002.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '071 in view of US patent 4884584, Smith.

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In regards to claim 6, Smith '071 discloses the claimed invention except for the floating seal having a stepped outer diameter. Smith '584 teaches a floating seal (22) having a stepped outer diameter. As Smith '584 relates to a undersea hydraulic coupling member, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the floating seal with a stepped outer diameter, since a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it illustrates the inventive concept of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 703-306-3436. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 703-306-5771. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

.amd

A handwritten signature in black ink, appearing to read 'Aaron Dunwoody', is positioned above the printed name.

Aaron Dunwoody
Patent Examiner
Technology Center 3670